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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Takayasu KOMATSU et al.
SERIAL NO: 09/964,189) Group Art Unit: 2879
FILED: September 26, 2001) Examiner: Sikha Roy
TITLE: SHADOW MASK FOR A CATHODE RAY TUBE

THE COMMISSIONER FOR PATENTS
P.O. Box 1450
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AMENDED CLAIMS

1. (currently amended) A shadow mask in which throughholes are formed, each of said throughholes having a rear side hole portion through which an electron beam enters and a front side hole portion through which the electron beam is emitted so as to form a beam spot having a prescribed shape on a surface to be irradiated;

wherein, each of said throughholes has a ridge portion formed by intersection of an inwardly tapered surface of said rear side hole portion and a taper surface of said front side hole portion;

wherein each of the throughholes at the front and rear side hole portions is circularly shaped;

wherein the front side portion of the throughholes is shifted toward the outer peripheral side of the shadow mask relative to the rear side hole portion;

the taper size T (= (S - Q)/2) as an average value of the individual portions of the taper surfaces which is represented by a value a half the difference between the hole width S at the end of said front side hole portion and the hole width Q at said ridge portion is within a range of from 30 to 40% of the thickness of said shadow mask; and

said ridge portion is formed at a sectional height of up to 35 μm

from the end of said rear side hole portion.

2. (currently amended) A shadow mask according to claim 1, wherein the taper size T as an average value of the individual portions of the taper surfaces in ~~the~~ a peripheral portion of said shadow mask is within a range of 30 to 40% of the thickness of said shadow mask.